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0895272, 082701

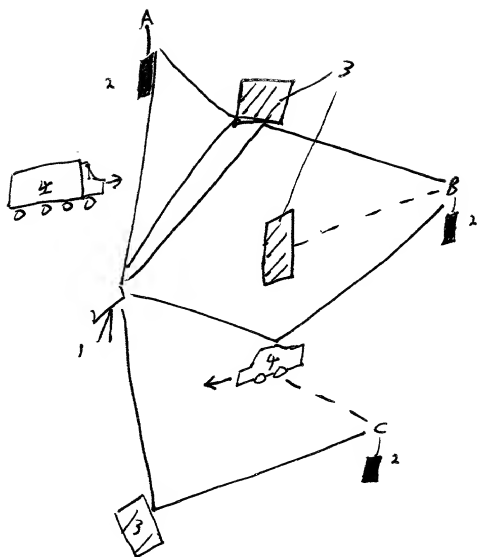
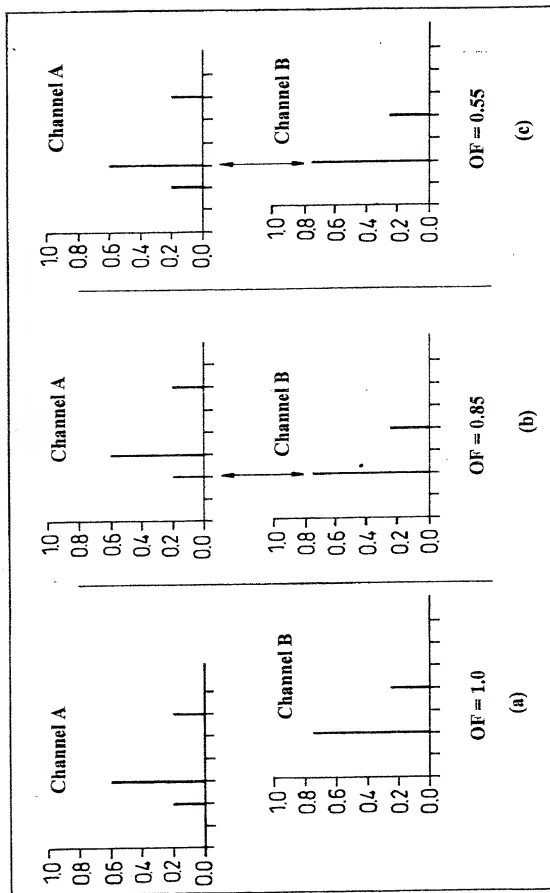


Fig 1

**Fig. 1**

Base station receives multiple signal components  
from a number of terminals  
for each terminal:



Determine a number of the strongest signal  
components displaced in time

Continuous or slow fade  
strongest component determination  
algorithm - see fig 4

Fast fade strongest component  
determination algorithm - see fig 5.

Determine difference in time between  
strongest component and a reference time

If timing difference exists, instruct terminal  
to adjust its transmission timing

Fig 3

Fig 4.

average signal strength of each of the strongest signal components over a predetermined interval



Determine whether ~~the~~ <sup>if that currently</sup> average signal strengths ~~exceed~~ the ~~average signal~~ synchronised signal component is exceeded by any of the other components

If so, <sup>does the</sup> ~~for~~ the highest average signal strength exceed that of the currently synchronised component by a predet. threshold

If so, ~~if~~ the effect is true & these components more than a predet. threshold.

If so, assign the highest ave. signal strength component as the ~~new~~ strongest component.

Fig 5.

Determine average signal strength of the strongest signal components over a shortened predetermined period



Determine whether the average of the current strongest component is better than the combined average of the other components by a predetermined amount



If so, assign the highest average signal component as the strongest component.



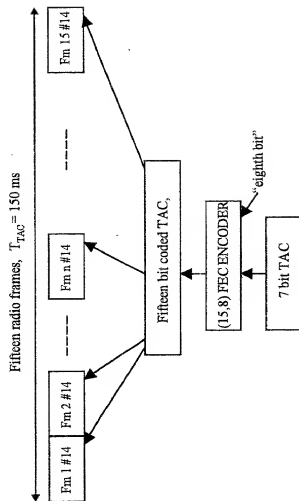


Figure  
6b

7 bit TAC	function
0000000	do nothing
0000001	if this is the only weighted bit set - advance time by table entry 0 (default 1/8 chip , tracking mode) if this is set in combination with other weighted bits - advance time by table entry 1 (default 1/4 microsecond) advance time by table entry 2 (default 1/2 microsecond) advance time by table entry 3 (default 1 microsecond) advance time by table entry 4 (default 2 microseconds) advance time by table entry 5 (default 4 microseconds) advance time by table entry 6 (default 8 microseconds) do nothing
0000010	
0000100	
0001000	
0010000	
0100000	
1000000	
1000001	If this is the only weighted bit set - retard time by table entry 0 (default 1/8 chip , tracking mode) if this is set in combination with other weighted bits - retard time by table entry 1 (default 1/4 microsecond) retard time by table entry 2 (default 1/2 microsecond) retard time by table entry 3 (default 1 microsecond) retard time by table entry 4 (default 2 microseconds) retard time by table entry 5 (default 4 microseconds) retard time by table entry 6 (default 8 microseconds)
1000010	
1000100	
1001000	
1010000	
1100000	

Figure  
6c



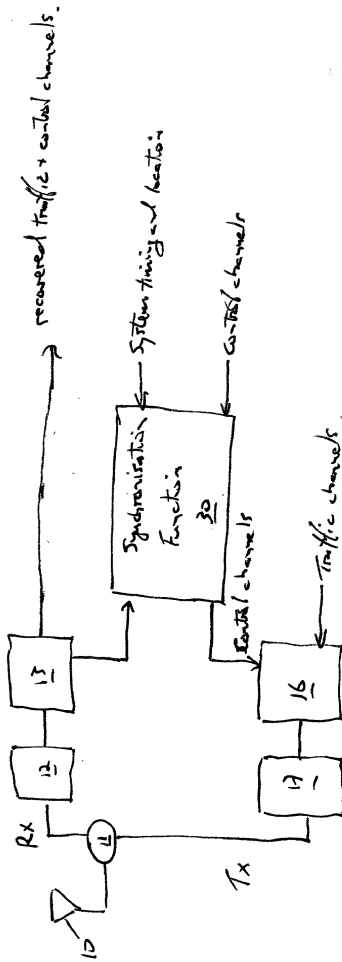


Fig 7

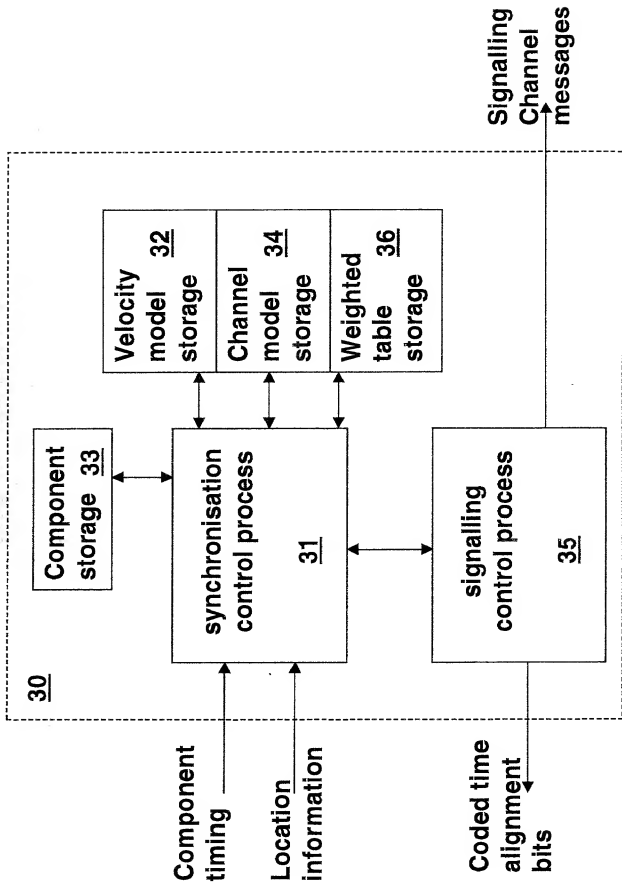


Figure 8

Fig 9.

Subscriber terminal receives signals from base station



Determine Transmission Time alignment commands.



Adjust transmission timing according to received commands.

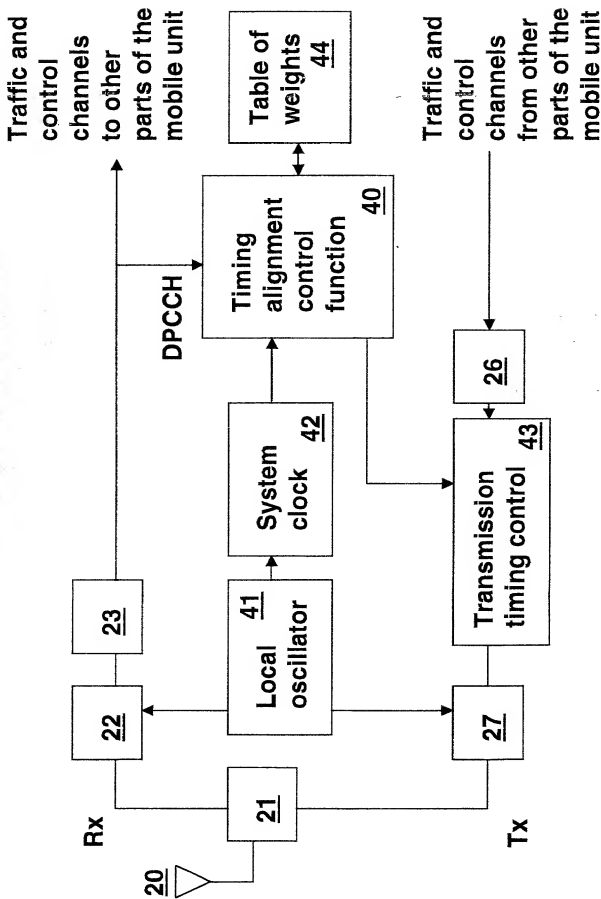


Figure 10

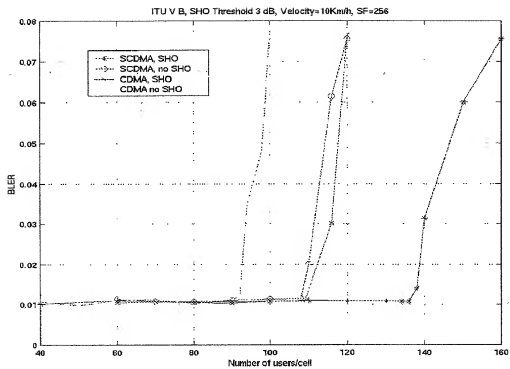


Figure 11a: Channel model: ITU Vehicular Channel B, Velocity 10 Km/h, SHO threshold: 3dB

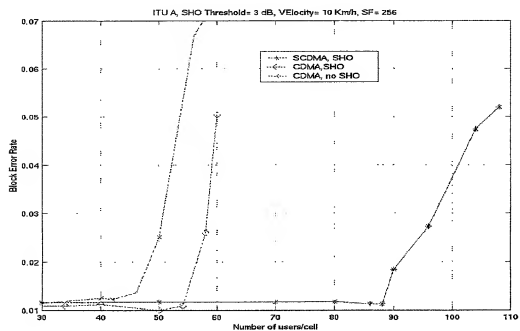


Figure 11b: Channel model: ITU Outdoor-Indoor Ch A, Velocity 10 Km/h